

Figure 1A

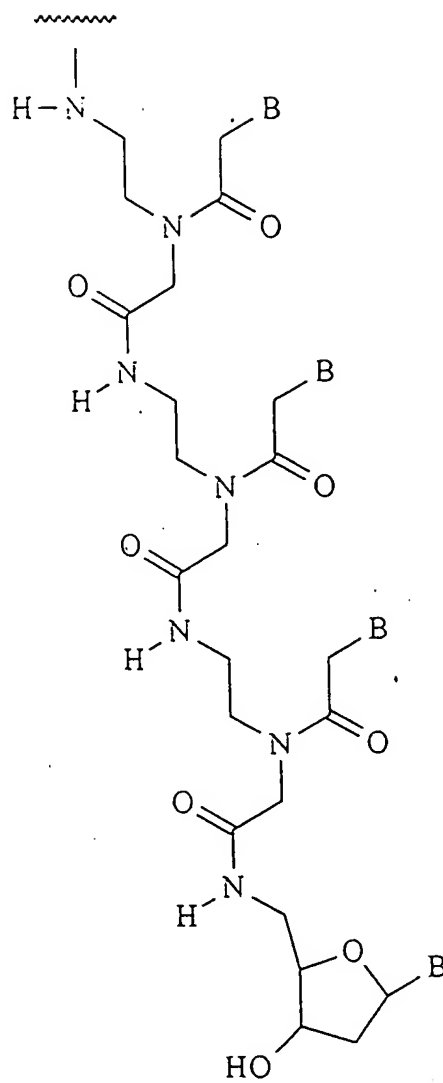


Figure 1B

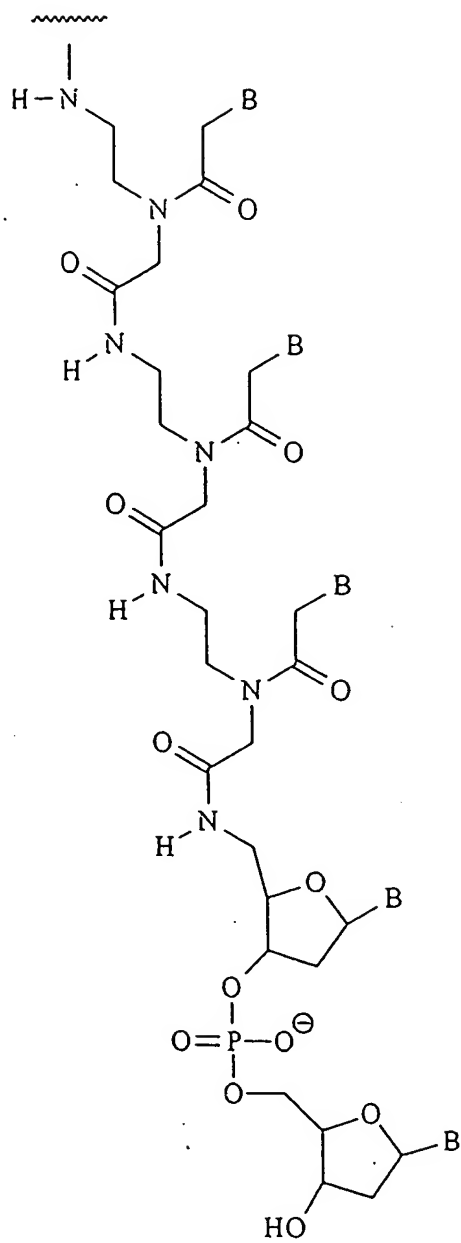


Figure 1C

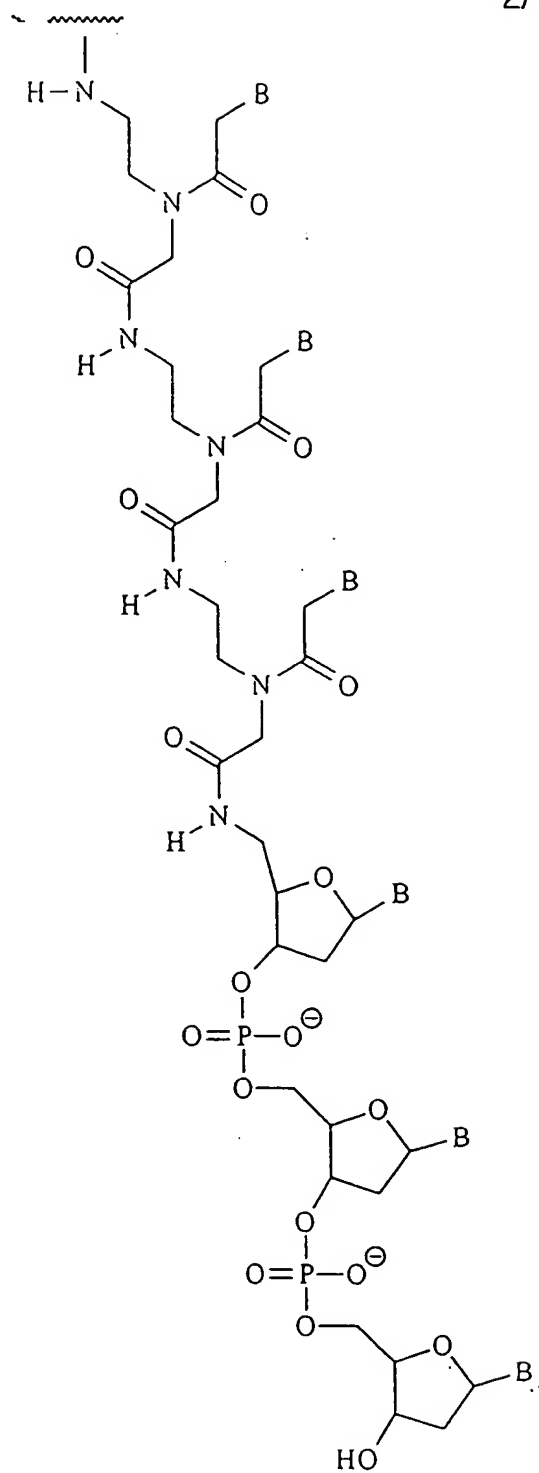


Figure 1D

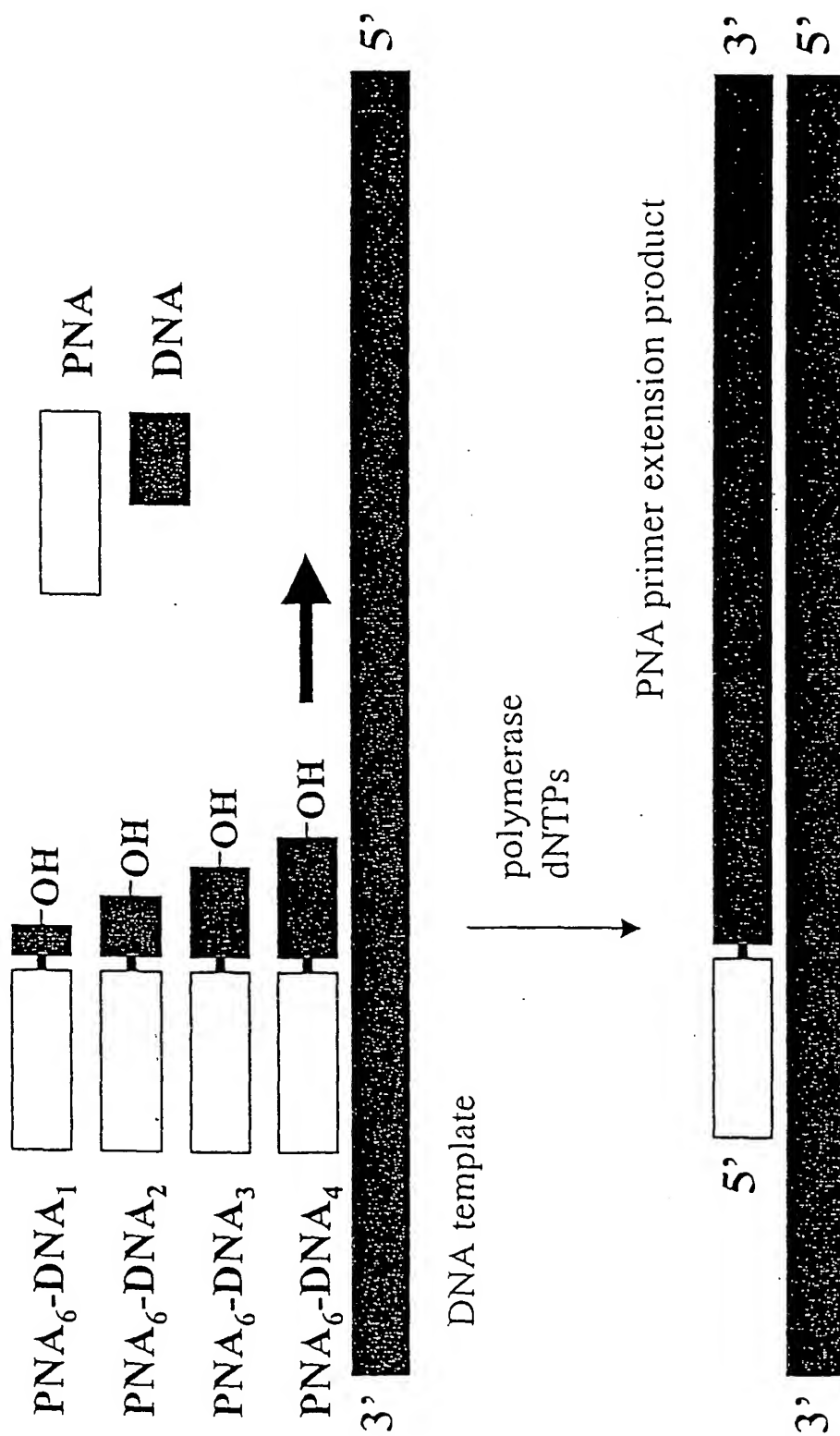


Figure 2

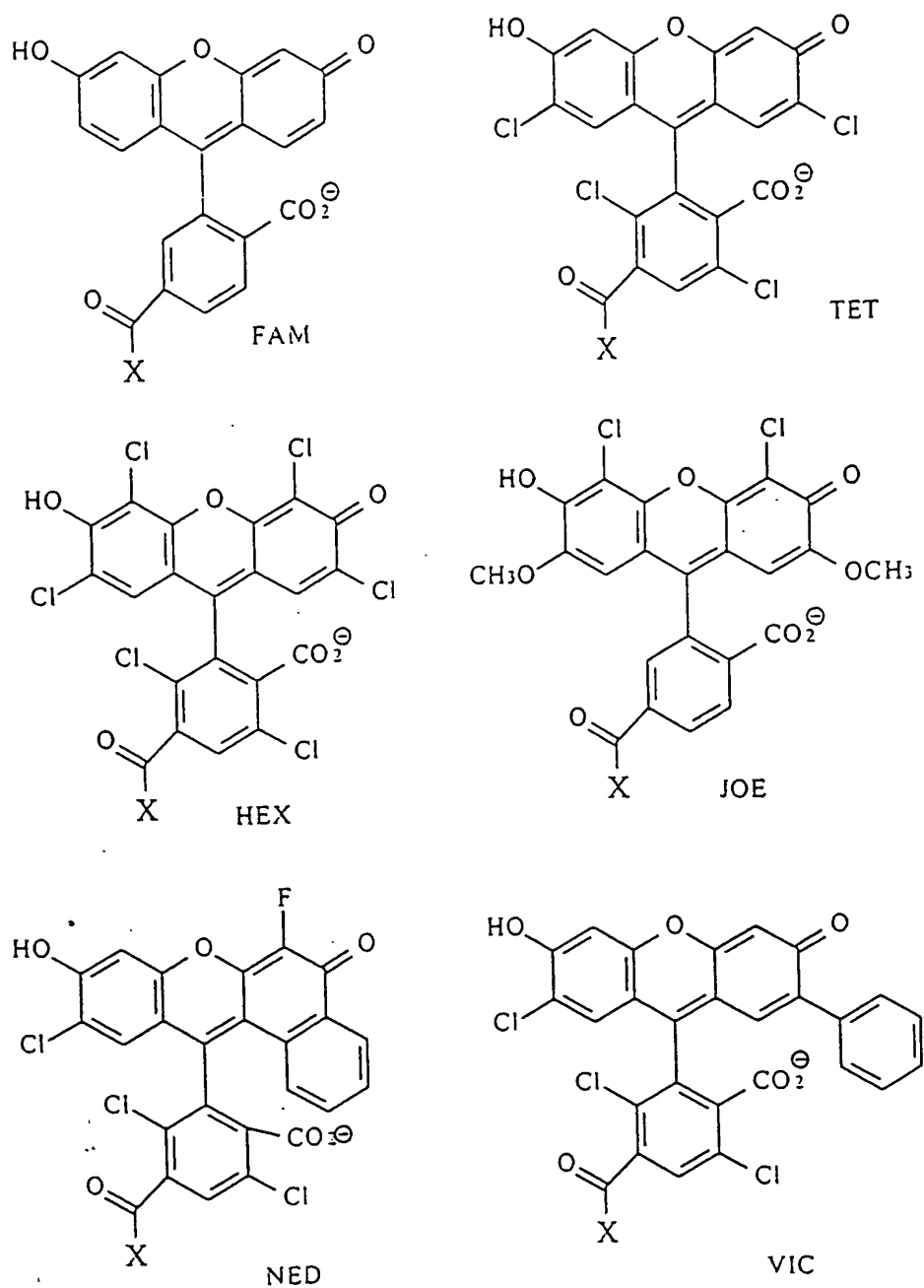


Figure 3A

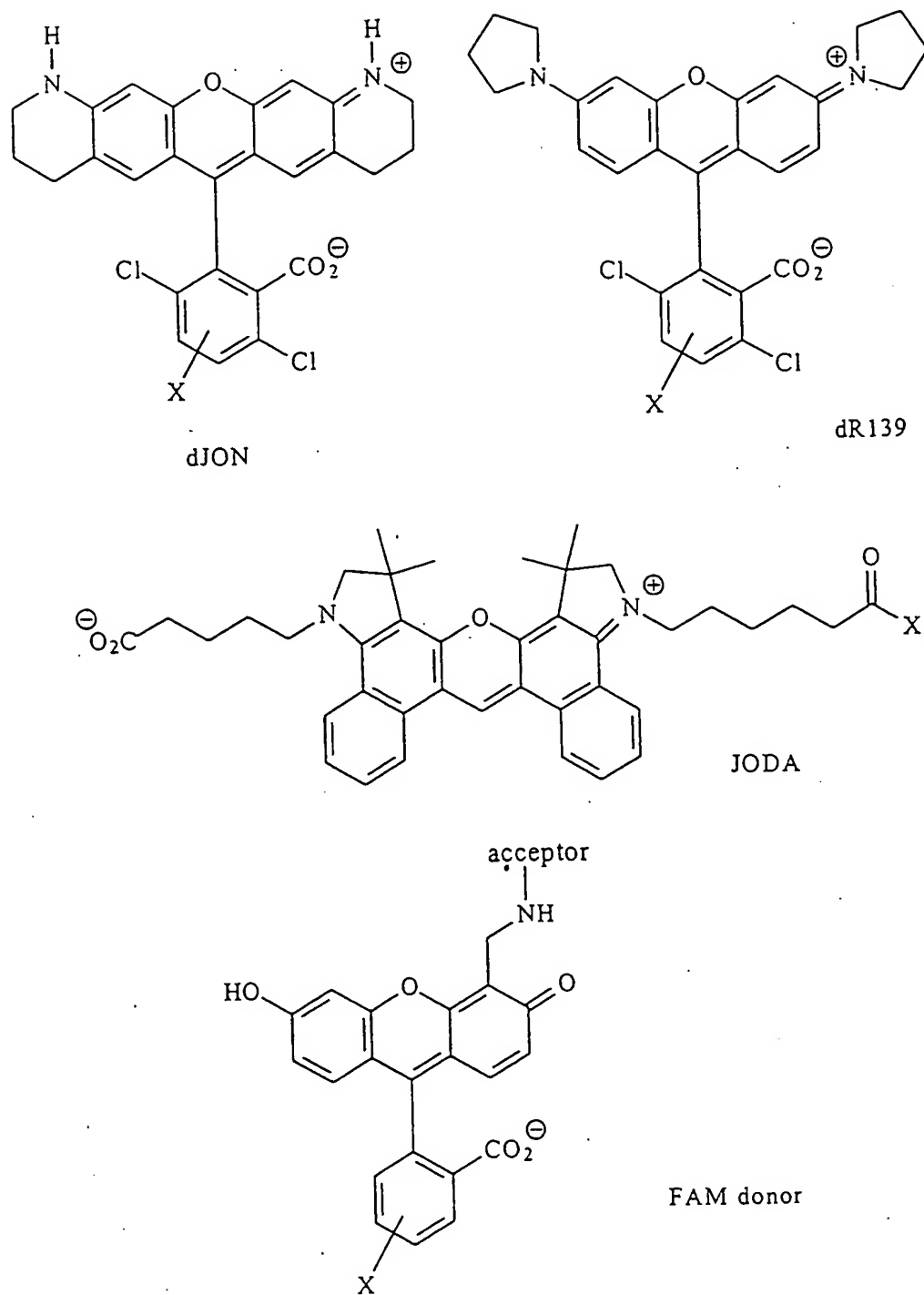


Figure 3B

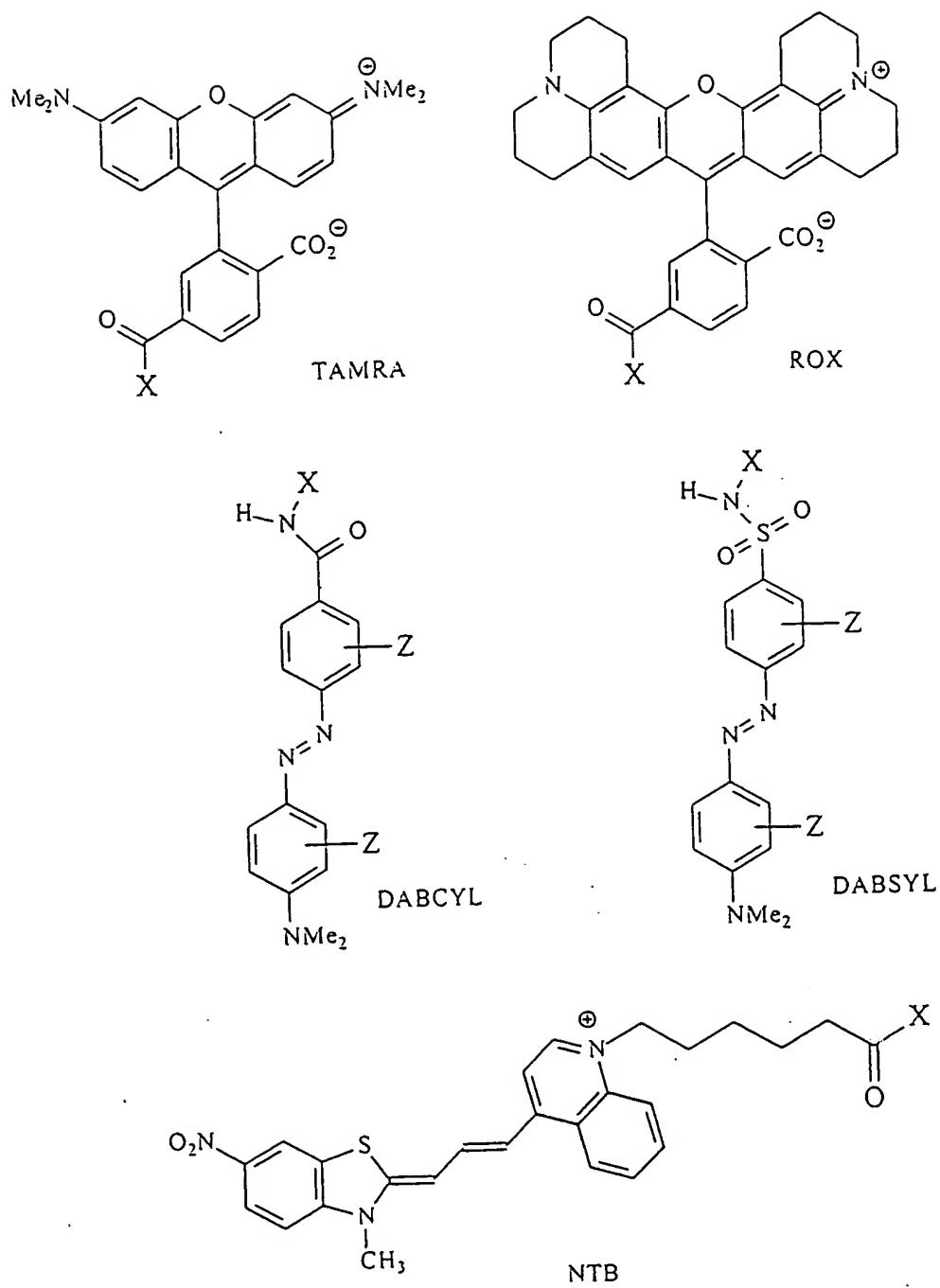
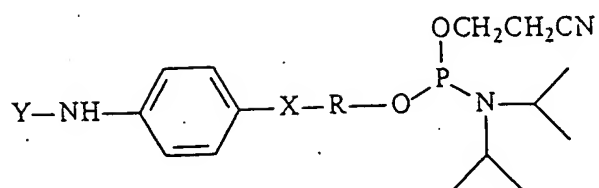
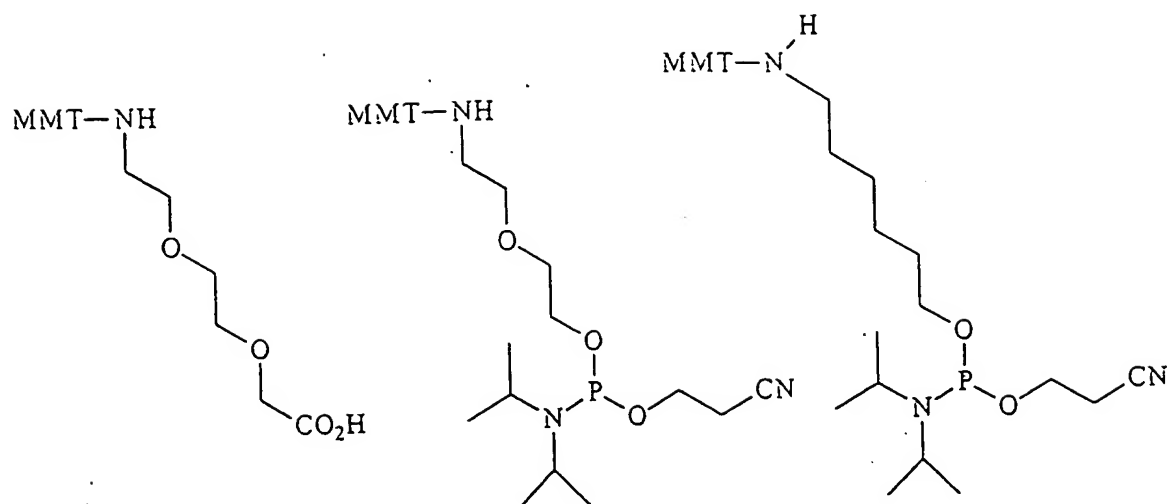


Figure 4



$X = \text{amide, urea, } CH_2, O, \text{ or } R$

$R = (CH_2)_n \text{ or } (CH_2CH_2O)_n$   
 $n = 1 - 10$

$Y = \text{trifluoroacetyl, Fmoc, trityl, MMT, DMT}$

**Figure 5**

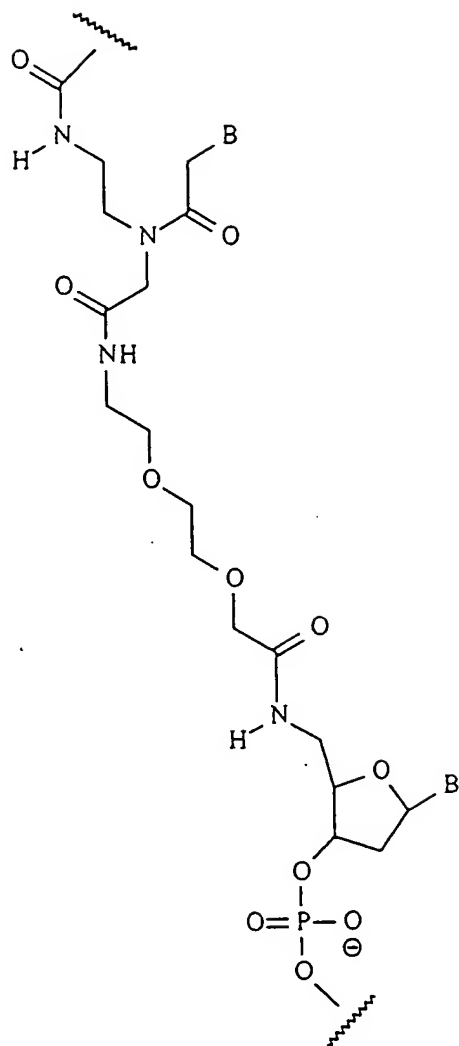


Figure 6A

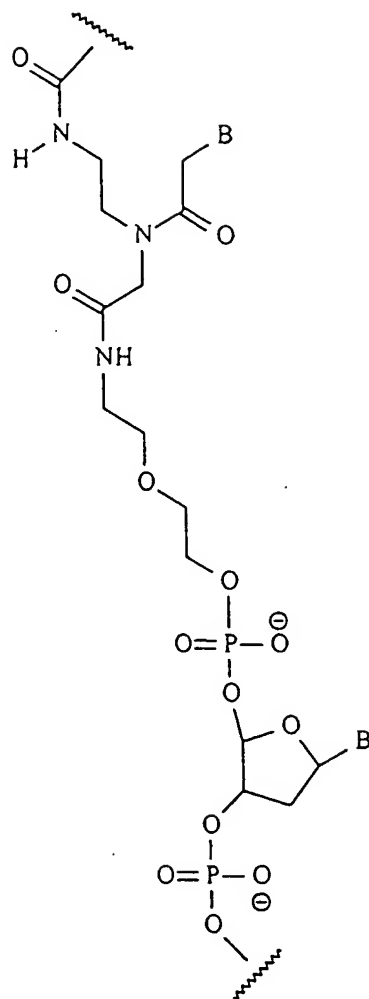
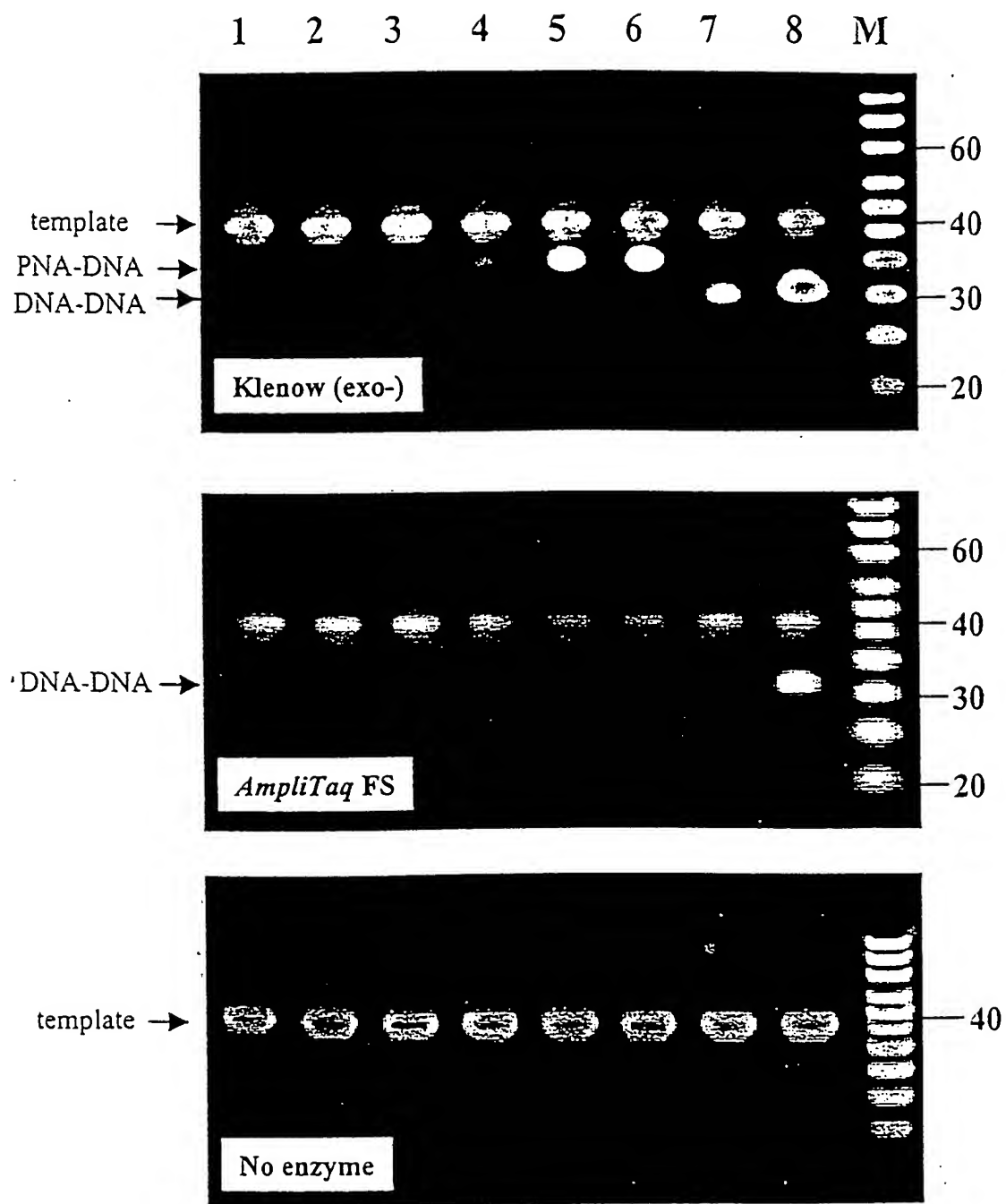


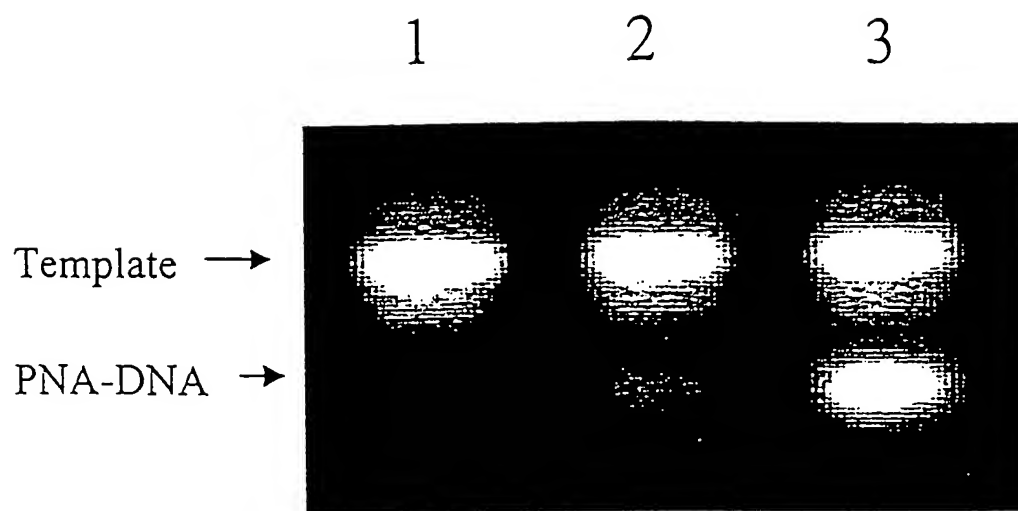
Figure 6B





15% Denaturing PAGE

Figure 7



15% Denaturing PAGE at 70 °C

Figure 8

Perfect match priming      Mismatched priming

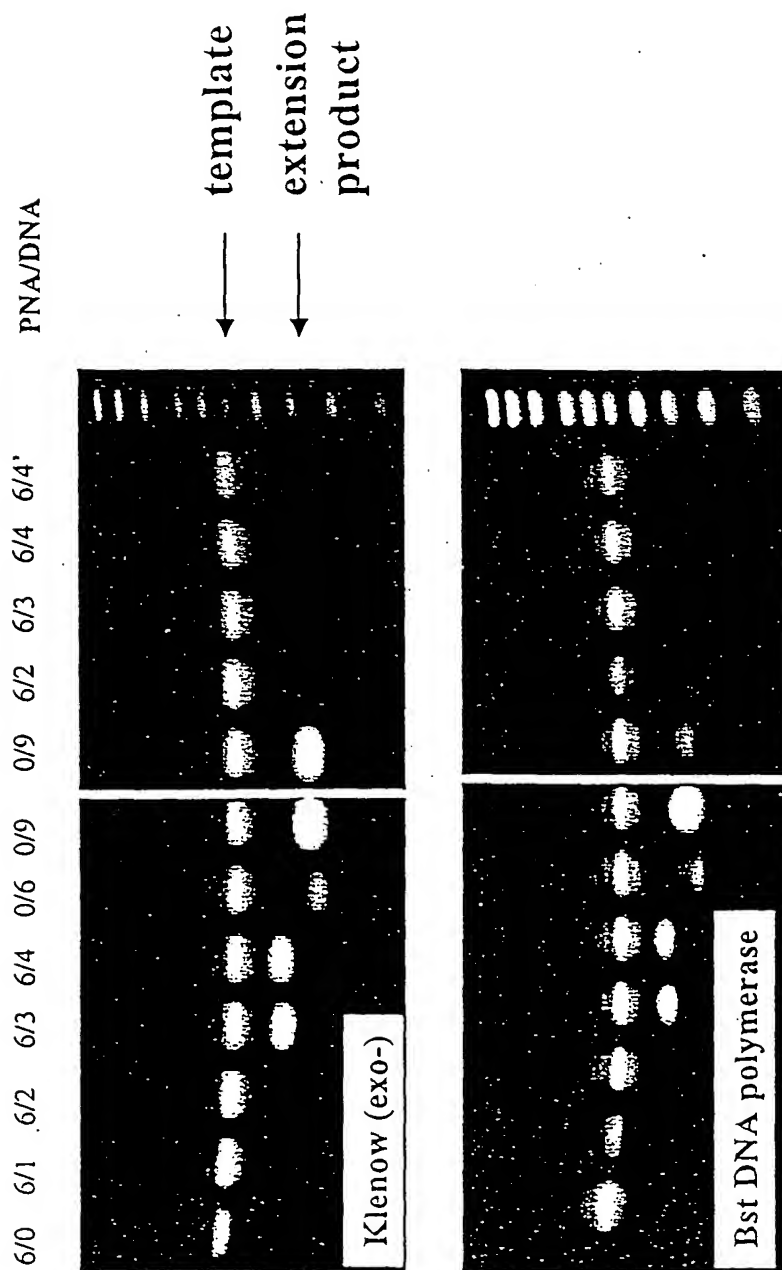
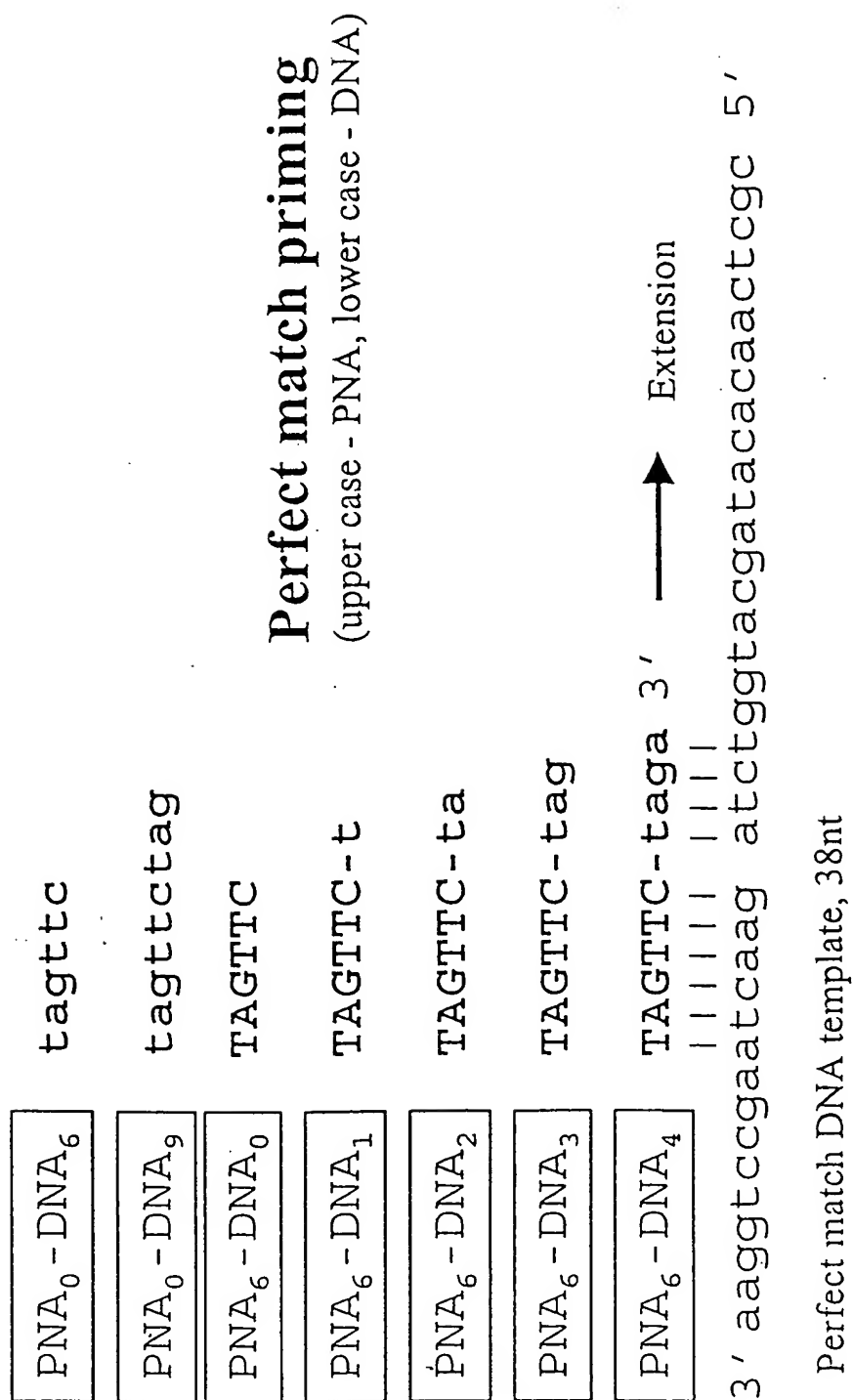


Figure 9



### Perfect match priming

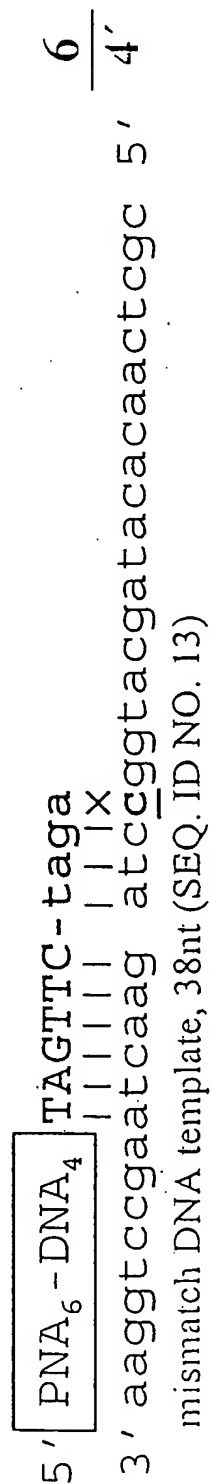
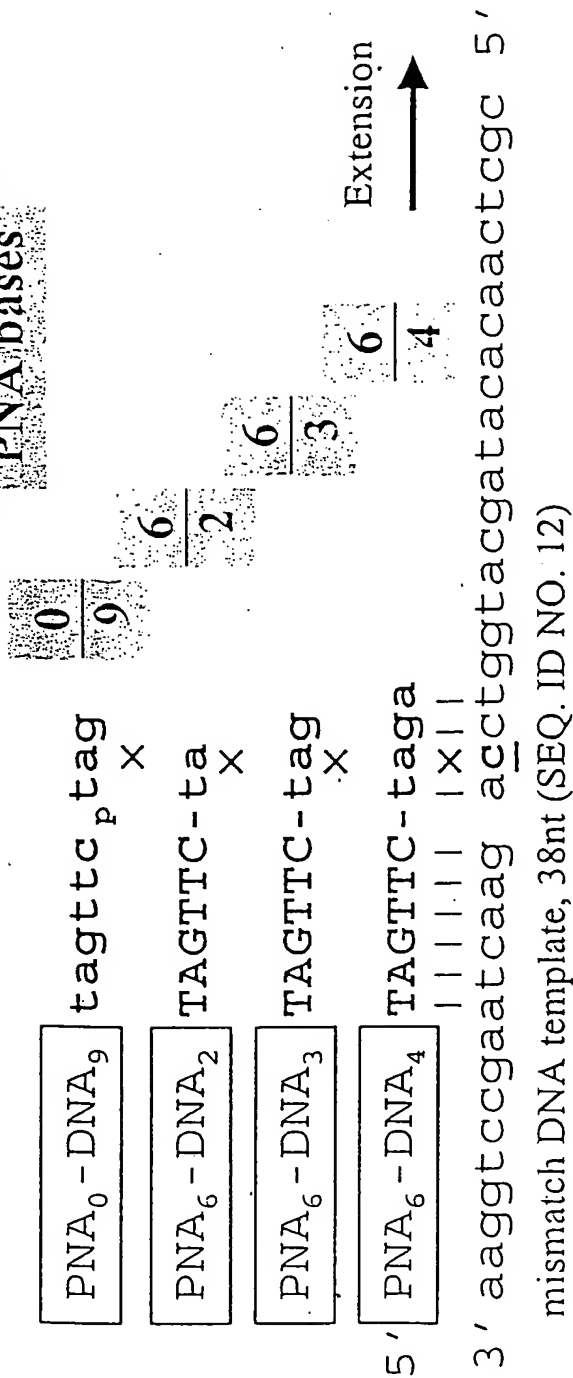
(upper case - PNA, lower case - DNA)

Figure 10

## Mismatched priming

(upper case - PNA, lower case - DNA)

(upper case - PNA, lower case - DNA)



## Figure 11

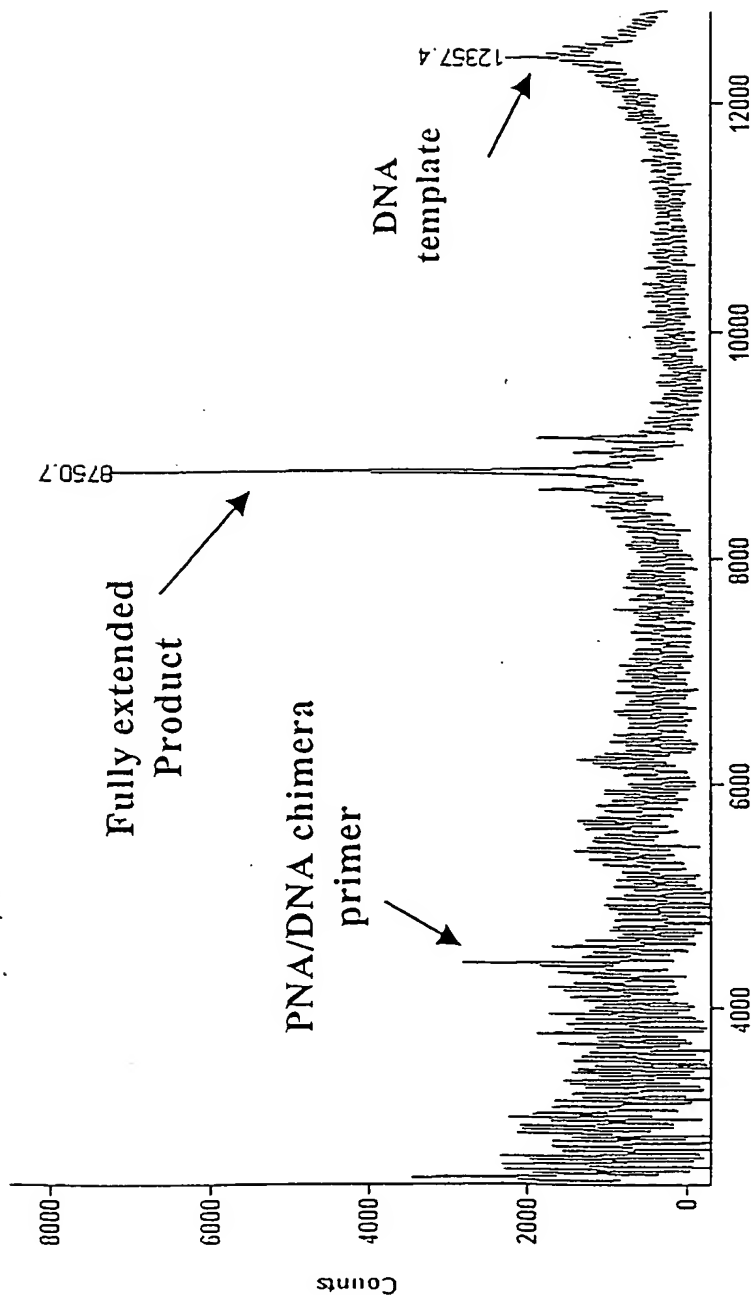
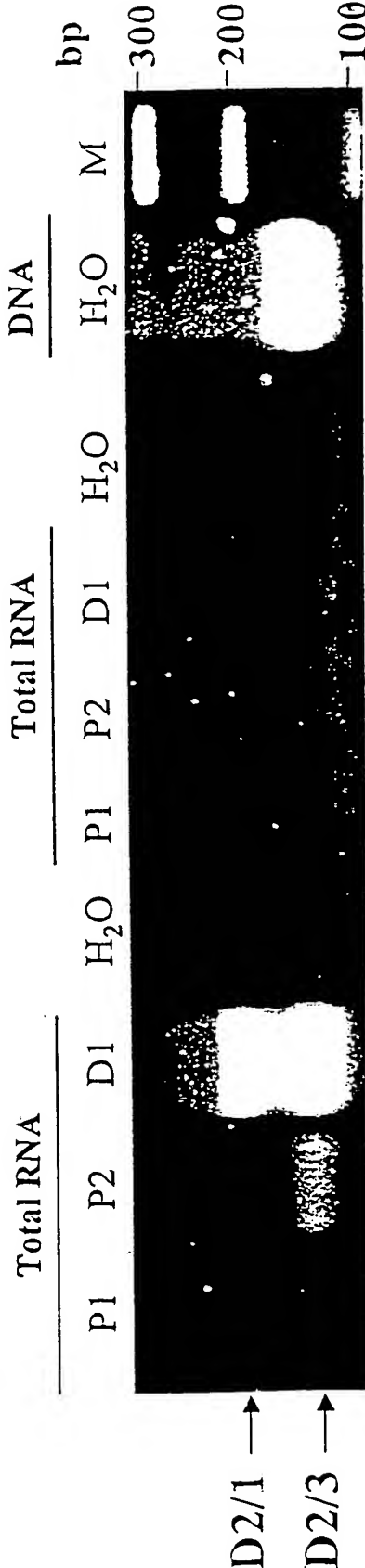


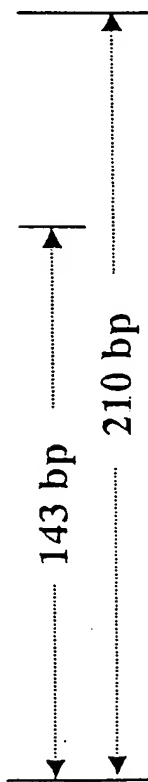
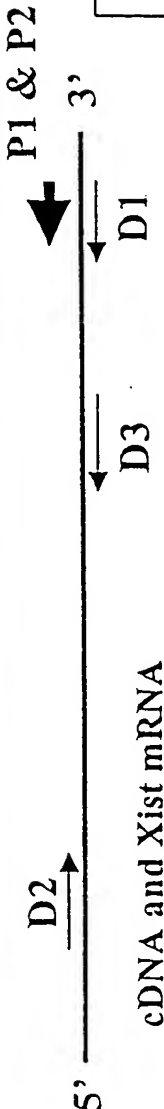
Figure 12

DNA primer D2 + D3

+ RT (rTth)                      No enzyme



D2/1 →  
D2/3 →



DNA primers: D1, D2, D3  
PNA/DNA chimera primers:  
P1 = PNA<sub>11'</sub>-DNA<sub>1</sub>  
P2 = PNA<sub>11'</sub>-DNA<sub>4</sub>

Figure 13

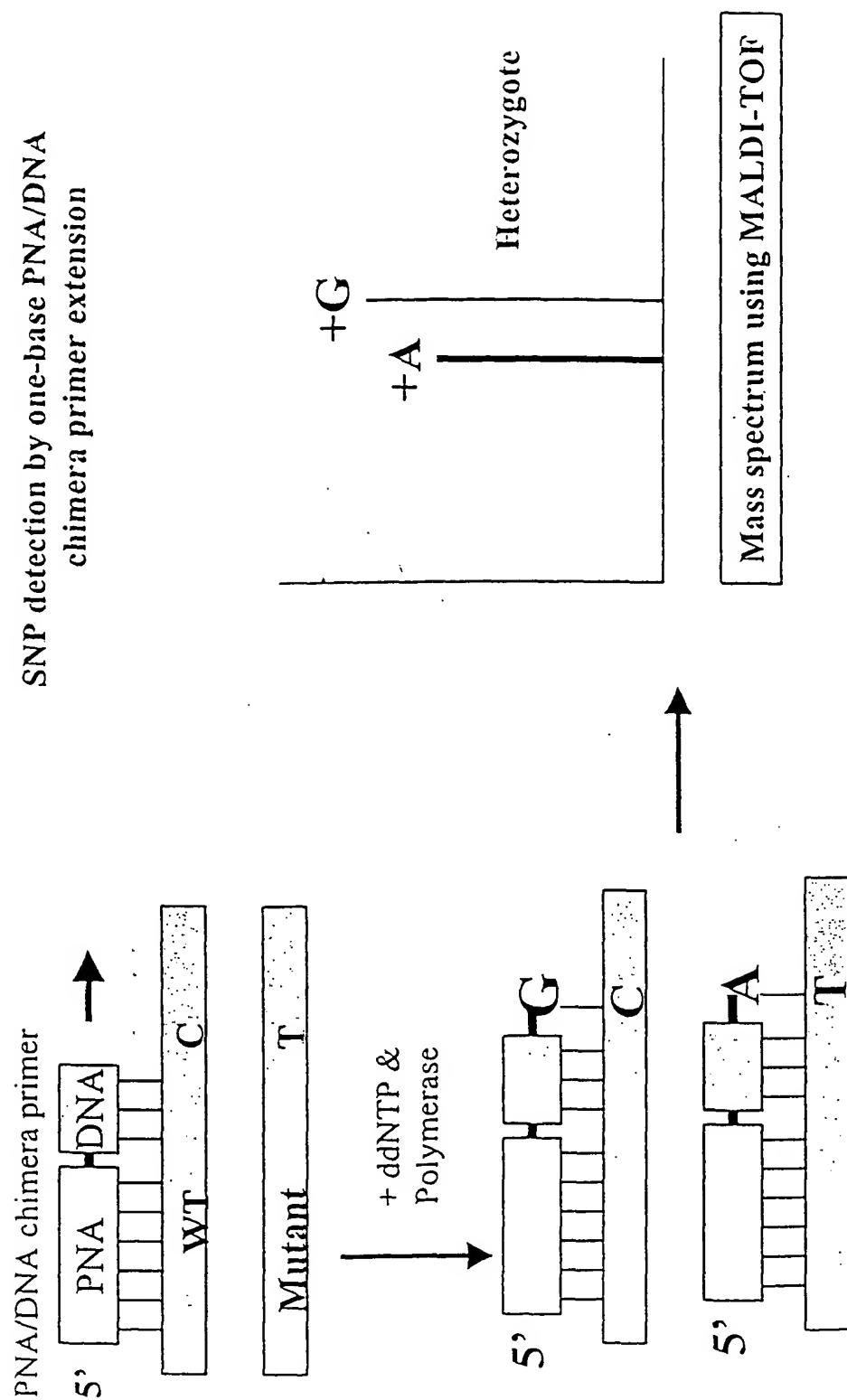
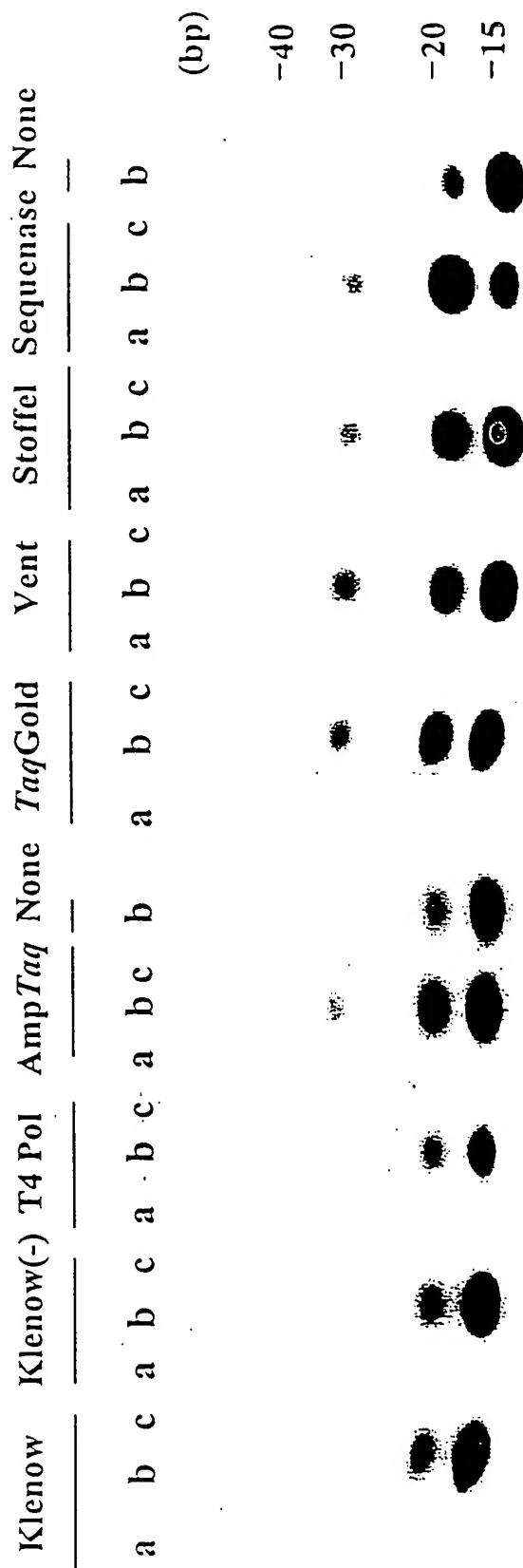


Figure 14





- a. 50  $\mu$ M each dNTP (dATP:dGTP:dCTP:dTTP)  
 b. dTTP replaced by 1  $\mu$ M TAMRA-dUTP in (a)  
 c. ddGTP:dGTP:dATP:dTTP:dCTP 500:5:50:50:50  $\mu$ M

Figure 15